

CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH

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Weekly Bulletin



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GUY P. JONES
EDITOR

Public Health Vital Statistics*

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It is perhaps presumptuous of me to speak to you today on Public Health Vital Statistics, realizing that such outstanding authorities as Haven Emerson, Edwin Bidwell Wilson and Arthur Hedrich have written many articles on this and related subjects. Of necessity, therefore, much will be reiteration. However, I shall attempt to inject a spark of new life into the consideration of dead and dismal figures by suggesting the unique position of the population of California, in regard to the distribution of individuals by age, sex, race and national background, because I believe that only after such an appreciation of the population has been gained can practices in public health and preventive medicine be evaluated.

Because of the present interest in the shift and redistribution of population, the customary sequence in a discussion of vital statistics will not be followed. Instead of going into the methods of collection of vital data, it will be assumed that birth and death registration and the reporting of the notifiable diseases has reached a safe level of completeness and accuracy, making statistical analyses possible. Perhaps this is too much to concede, but certainly after twenty years of collection, it is time to open the files of accumulated data.

In the first place, before the health officer can hope

to apply the statistical method, each item and characteristic must be rigidly defined. If this is not possible it is useless to attempt quantitative analyses. Take, for example, certain qualitative attributes of persons in the population, such as color or race, nationality, etc., or terms which are used to designate civil divisions; county, rural or urban area, city, etc. Are these notions capable of definition? Did the census definition of 1930 of Mexican as "all persons born in Mexico or having parents born in Mexico who are not definitely White, Negro, Indian, Chinese or Japanese" hold for other census enumerations? As a matter of fact, it did not. Definitions may change from one census enumeration to the next. These changes must be recognized and taken into consideration. In 1920 the Mexican population was classified with the white but ten years later this group was withdrawn from the white classification and placed in a special category. Until the 1940 census is enumerated, it will be impossible, therefore, to estimate the change in number of Mexicans.

Suppose as health officers, we were interested in the population of a certain county. How would the county population be defined? County boundaries are fixed, therefore the area sustaining the population does not change. However, it may seem advisable to exclude certain of the larger cities with health conditions which are peculiarly urban in character. It

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may be necessary also to exclude the confined populations of state institutions established within the county because, since they are not integral parts of the community, the vital statistics would be influenced to a large extent by the mortality and morbidity in these highly selected groups. The definition of "county population" would change in terms of the investigation, whatever it may be, but if this definition is stated and rigidly adhered to, the ultimate results of statistical analyses will have significance.

The next consideration to the health officer would be the population itself. There is no limit, practically speaking, to the amount of detail which may be used to classify population composition. Characteristics of the population should be stated in terms of the enumerated or estimated numbers, according to the standards of the United States Bureau of the Census. There should be no unsubstantiated approximations or numerical guesses as to the number of persons in certain racial or national groups. Each racial group should be classified according to sex and in turn age. The age groups should be chosen to represent different ranges which are useful in the study of the incidence of disease, of accidents, and of births or deaths. The usual classification, as you probably know, begins with under one year of age, 1-4 years and so on by five or ten year age groups up to 75 years and over.

Similar information is available to the health officer from previous censuses and may be used by him to evaluate changes and shifts in population composition. These shifts according to age, sex and race then may be investigated in relation to disease incidence and deaths over as long a period of years as possible. It is important to know whether migrations have taken place among men and women in the reproductive period of life because of changes in industrial or business conditions. Migrations do not always involve persons of the same age. Wherever a boom occurs, young able-bodied persons emigrate to that locality but few leave to go elsewhere. In addition, we in California are blessed with a class of immigrant, the aged and infirm, who wish to reap the benefits from our salubrious climate. These shifts greatly affect the birth and death rates.

The registration of births and deaths, and reporting of the incidence of the notifiable diseases have been the responsibility of most local health officers for a number of years. Is it enough for them to know the crude rates of births, deaths and disease; that is the number of each of these per 1000 total population? Perhaps the problems of the health department might be solved more satisfactorily were the registered and reported data classified according to the same groups suggested

for classification of the population, i.e., race, nationality, sex and age.

Let us consider for a moment the falling birth rate in California. To know that there were in 1932 approximately seven births less per 1000 total population than there were ten years before in this state means nothing in itself. There are a few pertinent questions which are immediately suggested. Does the 1932 total population include the same proportion of married women of ages 15-44 as did the population ten years ago? Are the same racial and national groups represented? A typical California situation obtains when we consider the Mexican population of the state. As has been previously stated, in the census of 1920 the Mexicans were classified with the white population. In 1930 the Mexicans were classified separately. Now consider the effect of this shift in population classification on the birth rates of the whites in certain parts of California where there are many Mexicans. By removing a population with a high fecundity rate from the classification of white into a special group, there would result a tremendous apparent reduction in the white birth rate which is fictitious, not real.

Now let us consider morbidity rates. Is it enough for a health officer to know that the incidence rates from diphtheria or scarlet fever or tuberculosis are declining in the total population? Each of these illnesses strikes a rather limited age group. Why not then base the morbidity rates on the populations in age groups at greatest risk? With a declining birth rate, the proportion of children in the total population must also be decreasing. The morbidity rates based on total population would naturally conceal this fact. In San Francisco the per cent of children ages 1-9 years has dropped from 14 in 1900 to 8 in 1930. Specificity in rates should not be limited to age alone but should include sex, race and sometimes even nationality or parentage. The last groupings are especially important in a consideration of tuberculosis. There is also necessity for watching these specific rates, year after year. Only by collecting, and carefully and consistently analyzing vital data for each year as it comes, by going as far back into the past as possible to seek comparable information, will the health officer be able to evaluate the accomplishments of preventive medicine and public health practice.

Even more difficult to recognize and study is the ever shifting kaleidoscope of inter and intrastate migration. On the other hand everyone is familiar with the successive waves of different national groups coming from Europe to the United States in the nineteenth and early twentieth centuries. California, as one of the far western states, has participated in each

of these movements of population and presents as diversified a population as would be found anywhere in the world. We have within our borders Chinese, Japanese, Hindus, Filipinos, Negroes and Mexicans in sizable numbers, presenting health situations differing greatly one from the other. We have in our white population many national groups, English and Irish, Italian, German, Scandinavian, Spanish, Greek, Portuguese, Russian. Each has its own national background of peculiar susceptibilities to disease, variations in dietary custom, and manner of living. These groups although disseminated to a certain extent, may also be found to be living in well established rural and urban centers. The study of the vital statistics of individual national groups might be very illuminating to a health officer. Even the sectionalism of the nation, New England, the South, Middle West, etc., is represented in different parts of California with rather startlingly sharp lines of differentiation. It then would seem rather naive to compare the rates of birth, disease and death in San Francisco, let us say, with those in Los Angeles, or Sacramento with Pasadena, or Humboldt County with Imperial County.

The tabulation and analysis of vital data as suggested in this short paper should be available for the health officer in a form which may be used easily to plan future work or to determine accomplishment. The health officer himself should not be asked to make a study of the vital statistics of his community but neither should it fall to the lot of a clerk or secretary. The person who performs the work of a vital statistician should be trained. In the words of Haven Emerson, "The progress which has followed the conscientious application of science to the protection of health demands as accurate, uniform and continuous a performance in the laboratory of statistics as has from the beginning characterized the work of the diagnostic laboratories of health departments. Such a standard has not yet been attained."

We wish to know what is going on; what the progress of science is; what leaders of the nations are doing; how our civilization is faring; and whether our community is what it should be. Though the matters to be dealt with are multifarious, one thing comforts us; only a people rich in culture has a wealth of problems. Nations that have slipped backward have been governed too little by what they knew or might have known, too much by indifference or superstition. Great changes swept over them before they realized what was happening. We wish to be alive to our country's needs and play a part in meeting them. We aspire to be free, realizing that freedom in our world of dense population is no longer a by-product of vacant lands, but a cultural achievement.—Leon J. Richardson.

PUBLIC HEALTH NURSING *

By MRS. MARY A. HAWTHORNE, Supervising Nurse,
Sacramento City Health Department

The Public Health Nurse.

1. She is a Nurse.
2. She is a Teacher.
3. She is a Social Worker.
4. She should be a "leader" to fulfill her destiny.

The Public Health Nurse must be a good nurse, one who mastered the principals and technique of her profession who has the ability to apply the practical aspects of her knowledge to her daily work, who has knowledge of psychology as applies to herself and to those whom she works with, and for.

Public health nursing has gradually taken a clearly defined place in the scheme of health education. The nurse as a friendly home visitor has become a health teacher, and as such she must possess health, know and practice the rules which govern health.

She must realize that she will be met with prejudice, scorn and unbelief, when she presents new truths on protection and maintenance of health.

Therefore she should have a fund of knowledge of the subject she is about to present, a genuine interest in her subject and an interest in the people she is teaching. Knowing and understanding something of their customs, habits and traditions, having tolerance towards all creeds, nationalities and personalities, and then teach her new doctrine in a plain understandable and applicable language.

The past several years have shown that no public health nurse can successfully discharge her duties without some knowledge of social work.

Know your community and its resources for both good and evil. Be able to obtain your family's history, one which will give you a clear picture of the economic status, the mental and physical conditions, also the social environment under which they live and aid rehabilitation by referring them to the proper civil, medical or social agencies that exist within your community.

As a leader the nurse can hardly fulfill the three-fold roll of her profession which I have just mentioned without being a leader.

Surely the nurse that aids the child in distress, who gains its confidence, who can teach it to be master of itself; and again the nurse who through her daily home visits, gains the confidence of her foreign mothers, who acts as their eyes, their ears, who even speaks for them a new but trusting language, surely this nurse is a leader. Truly, we are expected to aid

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our organization in progressive group education, through health talks and by taking active part in organizations, clubs, etc.

Health officers, school physicians, organization chiefs, who are responsible for the health education and disease prevention of communities, should not minimize the value of home visiting by their nurses. The results, though not measurable, are concrete and once the value of health is established within the home, health and school departments will have greater support for their prevention work.

MORBIDITY

Complete Reports for Following Diseases for Week Ending October 19, 1935

Chickenpox

101 cases: Berkeley 7, Oakland 14, Colusa, 5, Contra Costa County 1, Hercules 1, Walnut Creek 3, Fresno 2, Kern County 3, Los Angeles County 6, Burbank 1, Glendale 1, Los Angeles 10, Marin County 2, San Rafael 1, Merced County 5, Orange County 1, Anaheim 1, Riverside County 1, Sacramento 7, Rialto 2, San Diego 1, San Francisco 8, Stockton 1, San Luis Obispo 1, Santa Barbara 3, Palo Alto 3, San Jose 1, Solano County 1, Petaluma 1, Ventura County 3, Santa Paula 1, Yolo County 2, Marysville 1.

Diphtheria

68 cases: Berkeley 1, Oakland 7, Gridley 1, Brawley 3, Kern County 1, Hanford 1, Los Angeles County 4, La Verne 3, Long Beach 4, Los Angeles 16, Redondo 1, South Gate 1, Madera County 3, Santa Ana 1, Corona 1, Sacramento 5, San Bernardino County 2, San Bernardino 2, San Diego 3, Santa Clara County 2, San Jose 3, Watsonville 1, Tulare County 2.

German Measles

64 cases: Alameda 2, Berkeley 3, Oakland 1, San Leandro 1, Contra Costa County 6, Martinez 1, Fresno County 1, Los Angeles County 5, Glendale 2, Huntington Park 1, Long Beach 2, Los Angeles 7, Pasadena 1, South Gate 1, Maywood 1, San Rafael 1, Orange County 3, Santa Ana 1, San Diego 2, San Francisco 13, Daly City 2, Palo Alto 6, Vallejo 1.

Influenza

30 cases: Orland 2, Kern County 1, Los Angeles County 1, Los Angeles 21, San Fernando 1, South Gate 1, San Francisco 2, Turlock 1.

Malaria

11 cases: Fresno County 1, Los Angeles 1, San Joaquin County 6, California 3.*

Measles

116 cases: Alameda 2, Berkeley 1, Oakland 1, San Leandro 1, Martinez 1, Crescent City 1, Fresno 5, Kern County 2, Los Angeles County 1, Los Angeles 5, Whittier 1, Madera County 1, Madera 1, Marin County 3, Modoc County 5, Monterey County 3, Pacific Grove 15, Salinas 6, Sacramento 1, San Bernardino 2, San Francisco 30, Daly City 2, Santa Barbara County 3, Lompoc 1, Santa Clara 10, Watsonville 1, Yolo County 2, Woodland 9.

Mumps

159 cases: Alameda 1, Berkeley 11, Oakland 51, Piedmont 4, Colusa 3, Contra Costa County 1, Fresno County 3, Fresno 1, Kern County 1, Los Angeles County 6, Covina 3, El Monte 1, Long Beach 2, Los Angeles 6, San Rafael 2, Merced County 1, Monterey County 3, Grass Valley 10, Santa Ana 3, Corona 2, Riverside 1, Sacramento 23, San Diego 1, San Francisco 6, San Joaquin County 5, Stockton 2, Santa Barbara County 2, Santa Barbara 2, Turlock 1, Yolo County 1.

Pneumonia (Lobar)

30 cases: Los Angeles County 3, Burbank 1, Glendale 1, Glendora 1, Los Angeles 12, South Gate 1, Anaheim 1, Orange 1, Sacramento 1, San Diego 3, San Francisco 5.

Scarlet Fever

159 cases: Alameda County 1, Alameda 1, Berkeley 3, Hayward 2, Oakland 7, Piedmont 1, Gridley 1, Contra Costa County

* Cases charged to "California" represent patients ill before entering the state or those who contracted their illness traveling about the state throughout the incubation period of the disease. These cases are not chargeable to any one locality.

1, Concord 2, Richmond 1, Fresno County 5, Selma 1, Kern County 2, Hanford 1, Los Angeles County 10, Alhambra 7, Avalon 2, Burbank 1, Glendale 1, Huntington Park 3, Long Beach 3, Los Angeles 22, Montebello 1, Pasadena 1, Santa Monica 1, South Gate 1, Bell 1, Marin County 2, Ross 1, Merced County 4, Carmel 1, Grass Valley 3, Orange County 1, Fullerton 1, Orange 1, Santa Ana 2, Placentia 4, Riverside County 2, Riverside 1, Sacramento 9, San Diego 10, San Francisco 5, San Joaquin County 2, Stockton 2, San Luis Obispo County 1, Redwood City 1, San Bruno 1, Santa Clara County 1, Palo Alto 1, San Jose 1, Sunnyvale 1, Solano County 2, Suisun 2, Ceres 3, Fillmore 5, Oxnard 5, Woodland 1.

Smallpox

2 cases: Los Angeles 1, Tuolumne County 1.

Typhoid Fever

13 cases: Fresno County 1, Los Angeles 7, San Francisco 2, Siskiyou County 1, Sutter County 1, California 1.*

Whooping Cough

134 cases: Alameda 4, Berkeley 1, Oakland 5, Contra Costa County 4, Fresno County 1, Bakersfield 1, Los Angeles County 6, Glendale 3, Los Angeles 8, Pomona 1, Maywood 2, Grass Valley 6, Orange County 8, Fullerton 5, Sacramento 9, San Bernardino 1, San Diego 30, San Francisco 22, San Joaquin County 4, Stockton 5, San Luis Obispo County 2, Burlingame 3, Daly City 2, San Jose 1.

Meningitis (Epidemic)

3 cases: Los Angeles County 1, Sacramento 1, San Diego 1.

Dysentery (Amoebic)

4 cases: Los Angeles 2, San Joaquin County 1, Santa Clara County 1.

Dysentery (Bacillary)

One case: Lake County.

Leprosy

One case: Watsonville.

Pellagra

4 cases: Los Angeles 3, San Francisco 1.

Poliomyelitis

20 cases: Berkeley 2, Oakland 1, Kern County 2, Bakersfield 1, Los Angeles County 1, Los Angeles 6, San Bernardino 1, San Francisco 1, San Joaquin County 1, San Luis Obispo 1, San Jose 1, Turlock 2.

Trachoma

5 cases: Los Angeles County 1, Los Angeles 1, Santa Ana 1, Riverside County 1, San Francisco 1.

Hookworm

One case: San Francisco.

Paratyphoid Fever

2 cases: San Francisco 1, California 1.*

Trichinosis

2 cases: San Francisco 1, Santa Clara County 1.

Food Poisoning

12 cases: Los Angeles 6, San Francisco 3, Stockton 3.

Undulant Fever

3 cases: Whittier 1, San Bernardino 1, San Jose 1.

Coccidioidal Granuloma

One case: Los Angeles County.

Septic Sore Throat (Epidemic)

One case: Berkeley.

Relapsing Fever

One case: Mono County.

Rabies (Animal)

9 cases: Alhambra 1, Los Angeles 7, San Diego 1.

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